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Remarks

1) Summary of The Office Action

Claims 1-12, 14-24, 27-33, 35-55 and 57-63 were pending in the case. In the Office Action mailed June 18, 2002 the Examiner rejected claims 1-8, 14, and 52-55 and allowed claims 9-12, 15-24, 27-33, 35-51 and 57-63.

2) Cancellation of Non-Allowed Claims

The applicant has cancelled claims 1-8, 14, and 52-55 herein, with traverse and without prejudice to further prosecution of those claims by way of continuation or division, as may be appropriate.

3) Rejections Under 35 USC 112

There are no outstanding rejections under 35 USC 112.

4) Rejections Under 35 USC 102

There are no outstanding rejections under 35 USC 102.

5) Rejections Under 35 USC 103

There are no outstanding rejections under 35 USC 103.

Grounds of Traverse

Claims 1 - 8, 14, and 52 - 55 have been cancelled with traverse. For the sake of brevity, these grounds are provided here in abridged form, without prejudice to the applicant's right to provide more detailed grounds of traverse in such continuation or division as may be filed. The grounds of traverse, in brief, are as follows:

General Traverse

The applicant traverses all of the rejections of claims 1 - 8, 14, and 52 - 55. The applicant re-states all of the grounds of traverse previously provided in this matter, and reserves its right to make a more detailed traverse in such continuation or division of this case as may be made, whether in continuation or division of this case, or of any continuation, continuation in part, or division of any case from which this case may claim priority.



Claims 1-8

Without limiting the generality of the foregoing, the applicant respectfully repeats the grounds of traverse formerly provided in the response to office action of May 20, 2002. The primary ground of traverse is that the principle reference, US Patent 4,951,575 teaches away from the claimed invention of claim 1, claims 2-7 dependent from claim 1, and claim 8.

Claim 14

Without limiting the generality of the foregoing, the applicant respectfully repeats the grounds of traverse formerly provided in the response to office action of May 20, 2002. The primary ground of traverse is that the applicant submits that none of the references of record in the case show, describe, or suggest, a dropped deck center beam car having a foothold at the transition to facilitate movement of personnel between the medial portion and the end portion of the deck structure.

Claims 52 - 55

Without limiting the generality of the foregoing, the applicant respectfully repeats the grounds of traverse formerly provided in the response to office action of May 20, 2002. The primary ground of traverse is that the art of record in the case does not show, describe or suggest, either alone or in combination, a drop deck center beam rail road car having a step distance of at least 30 inches and a center sill of the properties set forth in claim 52.

Claim Amendments 7)

Claim 15 has been amended to provide proper antecedent basis for the term "deck sheet".

Claim 16 has been amended from "main sill" to "center sill", consistent with the antecedent basis provided in claim 15.

Claim 17 has been amended to correct a typographical error.

Claim 21 has been cancelled in view of the language of claim 15 which appears to included the features of claim 21.

Claim 22 has been amended to conform to the antecedents provided in claim 15.

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Claims 27, 28 and 29 appear to have been identical to claims 57, 58 and 61, respectively. In that light, claims 27, 28 and 29 have been cancelled as redundant.

Claim 30 has been amended to indicate that the car has medial deck portions and end deck portions, with the step height of cancelled claim 1.

Claim 43 formerly depended from claim 1. In view of the allowance of claim 43 and the cancellation of claim 1, claim 43 has been re-written in independent form.

Claims 64 and 65 are new dependencies for claims 9 and 15 respectively.

8) Conclusion

In view of the foregoing claim amendments, the applicant submits that all claims pending in this case are presently allowable. The applicant therefore requests early and favourable disposition of this matter.

Respectfully submitted,

Stephen L. Grant Reg. No. 33,390 Hahn Loeser & Parks LLP 1225 W. Market St. Akron, OH 44313 330-864-5550 Fax 330-864-7986

Email: slgrant@hahnlaw.com

Customer No. 021324



Marked-up Copy of Amended Paragraphs to Show Changes Made

In Figures 2c and 2d, a car 70 is similar to car 20, except insofar as single bay diagonal braces 74 are used rather than double bay braces. In both of cars 20 and 70, the respective end deck portions are offset upwardly from the lading supporting structure of medial deck portion 29 by a height increment indicated as δ (Figure 2a). In the embodiments illustrated in Figures 2a, 2b, 2c and 2d, the step increment corresponds to the height of a nominal 31 1/2 inch bundle of lumber, plus dunnage, (that is, 31½ inches of lumber plus 1 - ½ inches of dunnage), totalling 33 inches plus a $\frac{4}{2}$ inch tolerance for an actual step height of $33\frac{5}{2}$ (+/- $\frac{1}{2}$) [33 $\frac{5}{2}$ (+/- $\frac{1}{2}$)]. If the bundle of lumber is a lesser height, such as 30 inches, the discrepancy may be made up by additional dunnage.

Marked-up Copy of Amended Claims to Show Changes Made

- 1. (Cancelled) A center beam rail road car comprising:
 - a deck structure supported on rail car trucks, said deck structure having first and second end portions and a medial portion lying between said first and second end portions, said medial portion being stepped downward relative to said end portions;
 - a central beam assembly running lengthwise along said rail road car between said end portions, said beam assembly standing upwardly of said deck structure; and
 - said medial portion being stepped downward relative to said end portions by a distance of at least 30 inches.
- 2. (Cancelled) The center beam rail road car of claim 1, further comprising:
 - a center sill extending along said rail road car, said center sill having an upper flange, a lower flange, and at least one upright web connecting said upper and lower flanges;
 - at least a portion of said upper flange lying at a first height corresponding to said first end portion of said deck structure; and
 - at least a portion of said lower flange lying at a second height corresponding to said medial portion of said deck structure.
- 3. (Cancelled) The center beam rail road car of claim 2 wherein:
 - said center sill has two, spaced apart upright webs;
 - said center sill has a height measured across said upper and lower flanges, and a width measured across said webs; and
 - along at least part of said center sill between said trucks, said center sill has an aspect ratio of said height to said width of at least 2.4: 1.0.
- 4. (Cancelled) The center beam rail road car of claim 1 wherein said central beam assembly includes an array of posts extending upwardly from said center sill, at least one of said posts having a roll-formed section, and at least part of said roll formed section being oriented to present a smooth, roll formed surface to lading placed outboard thereof.
- 5. (Cancelled) The center beam rail road car of claim 4 wherein said at least one post is a hollow four sided tube.





- 6. (Cancelled) The center beam rail road car of claim 3 wherein, along said medial portion of said deck structure, said center sill has at least one web separator plate mounted between said webs of said center sill.
- 7. (Cancelled) The center beam rail road car of claim 1 wherein a transversely oriented step bulkhead extends upwardly between said medial portion of said deck structure and said first end portion of said deck structure, and a foothold is mounted to said step bulkhead to facilitate ascent from said medial portion of said deck structure to said end portion of said deck structure.
- 8. (Cancelled) A center beam rail road car, comprising:
 - a deck structure mounted on a pair of first and second spaced apart rail car trucks;
 - a central vertical web assembly running along said car, said vertical web assembly extending upwardly of said deck structure, and
 - a top chord surmounting said vertical web assembly;
 - said deck structure including first and second end decking portions mounted over said respective first and second trucks, said first and second end decking portions having structural members presenting respective first and second end portion load bearing interfaces, and a medial decking portion lying between said trucks, said medial decking portion having at least one member presenting a medial load bearing interface;
 - said medial load bearing interface being stepped downward relative to said first portion load bearing interface through a step distance; and said step distance being greater than 30 inches.
- 14. (Cancelled) A center beam rail road car comprising:
 - a deck structure carried by rail car trucks, said deck structure having first and second end portions and a medial portion lying between said first and second end portions, said medial portion being stepped downward relative to said end portions;
 - first and second end bulkheads extending upwardly from opposite ends of said deck structure;
 - a central vertical beam assembly running lengthwise along said rail road car between said bulkheads, said beam assembly standing upwardly of said deck structure;
 - said medial portion of said deck structure being connected to said first end portion of said deck structure at a first step; and
 - said first step having a foothold mounted thereto to facilitate movement of personnel

between said first end portion and said medial portion of said deck structure.

- 15. (Twice Amended) A center beam rail road car comprising:
 - a deck structure supported on rail car trucks for rolling motion in a longitudinal direction; said deck structure including a pair of first and second end portions, and a medial portion carried between said end portions, said medial portion being stepped downwardly relative to said end portions;
 - a center sill running along said deck structure;
 - said center sill having a first center sill end portion, said center sill end portion having an upper flange and a pair of spaced apart webs extending downwardly from said upper flange;
 - a central beam assembly running lengthwise along said rail road car between said end portions, said beam assembly standing upwardly of said deck structure;
 - said first end portion of said deck structure including an end portion deck sheet; and
 - a draft pocket cap plate mounted within said first center sill end portion between said pair of spaced apart webs, said draft pocket cap plate lying at a lower level than said end portion deck sheet, whereby a draft pocket is defined between said pair of webs and below said draft pocket cap plate.
- 16. (Amended) The center beam rail road car of claim 15 wherein a first bolster extends laterally from said [main] center sill to support said first end portion of said deck structure, said bolster having a upper flange extending in a plane lying at a greater height from top of rail than said draft pocket cap plate.
- 17. (Twice Amended) The center beam rail road car of claim 15 wherein:
 - said center sill has a central [position] <u>portion</u> adjacent to said medial portion of said deck structure and first and second end portions adjacent to said first and second end portions of said deck structure;
 - said central portion of said center sill has an upper flange, a pair of spaced apart webs extending downwardly from said upper flange and a lower flange mounted to said webs, said upper flange, said lower flange and said webs of said center sills defining a hollow box beam;
 - said medial portion of said deck structure has a deck sheet; and
 - said lower flange of said central portion of said center sill is mounted at a level corresponding to said deck sheet of said medial portion of said deck structure.



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- 21. (Cancelled) The center beam car of claim 15 wherein said first end portion of said deck structure includes a deck sheet mounted higher relative to top of rail than said draft pocket cap plate.
- 22. (Amended) The center beam car of claim 15 wherein said deck sheet of said first end portion of said deck structure [includes deck sheeting] is mounted to said upper flange of said first end portion of said center sill, said [sheeting] sheet extending laterally outboard from said center sill.
- 27. (Cancelled) A center beam rail road car comprising:
 - a deck structure having first and second end portions and a medial portion lying between said first and second end portions, said medial portion being stepped downward relative to said end portions;
 - first and second end bulkheads extending upwardly from opposite ends of said deck structure;
 - a central vertical beam assembly running lengthwise along said rail road car between said bulkheads, said beam assembly including a center sill, a top chord spaced upwardly from said center sill, and structural members extending upwardly of said deck structure, said structural members connecting said center sill and said top chord;
 - said first end portion of said deck structure having a first end deck sheet;
 - said center sill having a first center sill end portion, said center sill end portion having an upper flange and a pair of spaced apart webs extending downwardly from said upper flange;
 - a draft pocket cap plate mounted within said first center sill end portion between said pair of spaced apart webs, said draft pocket cap plate lying at a lower level than said deck sheet; and
 - a draft pocket defined between said pair of webs and below said draft pocket cap plate.
- 28. (Cancelled) The center beam rail road car of claim 27 wherein a first bolster extends laterally from said main sill to support said first end portion of said deck structure, said bolster having a upper flange extending in a plane lying at a greater height from top of rail than said draft pocket cap plate.
- 29. (Cancelled) The center beam car of claim 27 wherein: side sills extend along either side of said deck structure;





- said side sills each have a medial portion running along said medial portion of said deck structure, and first and second end portions running along said first and second end portions of said deck structure; and
- said end portions of said side sills have a greater depth of section than said medial portions of said side sills.

30. (Twice Amended) A center beam rail road car comprising:

- a deck structure carried on railcar trucks for rolling motion in a longitudinal direction, a pair of first and second bulkheads extending upwardly of said deck structure at either end thereof, and a central beam assembly standing upwardly of said deck structure and running lengthwise along said deck structure between said bulkheads;
- said deck structure being supported by a center sill, said center sill having a first, longitudinally outboard portion located longitudinally outboard of one of said trucks, and a second, longitudinally inboard portion located between said rail car trucks:

said second portion being narrower than said first portion;

- said first, longitudinally outboard portion of said center sill having members defining a draft pocket therein, and said first, longitudinally outboard portion of said center sill having an overall height greater than said draft pocket;
- said deck structure including first and second end portions and a medial portion between

 said first and second end portions, said medial portion being stepped downwardly
 relative to said end portions by a distance of at least 30 inches; and
- said medial portion of said deck structure being supported from said longitudinally inboard portion of said center sill, and a first of said end portions of said deck being supported from said longitudinally outboard portion of said center sill.

43. (Twice Amended) A center beam rail road car comprising:

- a deck structure supported on rail car trucks, said deck structure having first and second end portions and a medial portion lying between said first and second end portions, said medial portion being stepped downward relative to said end portions:
- a central beam assembly running lengthwise along said rail road car between said end portions, said beam assembly standing upwardly of said deck structure; and
- said medial portion being stepped downward relative to said end portions by a distance of at least 30 inches

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[The center beam rail road car of claim 1 wherein:]

said deck structure is supported by a center sill,

said center sill has a first portion mounted between said trucks, said first portion having a height and a width, said height being greater than said width;

said center sill has at least one internal web mounted therewithin;

said web is a first web;

said central beam assembly includes at least one post standing upwardly of said center sill, said post having a second web standing cross-wise relative to the lengthwise direction of said rail road car; and

said first web is positioned to provide web continuity with said second web.

52. (Cancelled) A center beam rail road car comprising:

a deck structure carried on rail car trucks for rolling motion in a longitudinal direction, and a center beam assembly standing upwardly of said deck structure and running lengthwise along said deck;

said deck structure being supported by a center sill,

- said deck structure including a first portion mounted above one of said trucks, and a second portion mounted between said trucks, said second portion of said deck structure being stepped downwardly relative to said first portion of said deck structure a distance of at least 30 inches;
- said center sill having a first portion mounted between said trucks, said first portion having a height and a width, said height being greater than said width in a ratio of at least 2.0:1.0; and

said center sill having at least one internal web separator mounted therewithin.

- 53. (Cancelled) The center beam rail road car of claim 52 wherein:
 - said central beam assembly includes at least one post standing upwardly from said first portion of said center sill; and

said post has a web located above said internal web member of said center sill.

- 54. (Cancelled) The center beam rail road car of claim 52 wherein said second portion of said decking structure includes at least one cross-bearer extending laterally to either side of said first portion of said center sill, said cross-bearer has a cross-bearer web, and said web of said cross-bearer is co-planar with said internal web member of said center sill.
- 55. (Cancelled) The center beam rail road car of claim 54 wherein said second portion of said



- center sill is underslung by said cross-bearer and said web of said cross bearer passes below said internal web member of said first portion of said center sill.
- 64. (New) The center beam rail road car of claim 9 wherein said medial decking portion is stepped downwardly at least 30 inches relative to said end decking portions.
- 65. (New) The center beam rail road car of claim 15 wherein said medial portion of said deck structure is stepped downward a distance of at least 30 inches relative to said end portions.